

# Spring Partnership Knowledge Organiser

Science Focus

Forces

Year 5

Autumn 2

## What do I need to learn?

- I can
- Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.
  - Identify the effects of air resistance, water resistance and friction that act between moving surfaces.
  - Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

## Oracy – key questions for discussion

- Have you ever tried to push a floating toy down under the water?
- Have you ever tried to keep a balloon in the air?

What's going on? – Turning teeth



Which is the odd one out? Why?



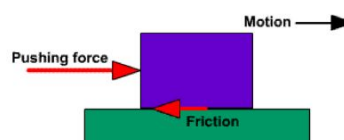
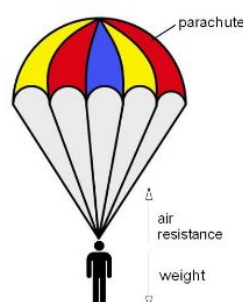
## Key vocabulary

Force, gravity, Earth, air resistance, water resistance, friction, mechanisms, simple machines, levers, pulleys, gears

## What have we learned before that may help us?

- Compare how things move on different surfaces.
- Notice that some forces need contact between two objects, but magnetic forces can act at a distance.
- Observe how magnets attract or repel each other and attract some materials and not others.
- Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.
- Describe magnets as having two poles.
- Predict whether two magnets will attract or repel each other, depending on which poles are facing.

## Diagrams/Pictures



## The 5 Enquiry Skills – What skills have you used?

Pattern Seeking, Identifying, Classifying and Grouping, Comparative and Fair Testing, Research using Secondary Sources, Observation over time